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Proposed Regulation Agency Background Document

Agency name	Virginia Department of Health
Virginia Administrative Code (VAC) citation	12 VAC 5 -585
Regulation title	Biosolids Use Regulations
Action title	Field Storage
Date this document prepared	June 20, 2007

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Orders 36 (2006) and 58 (1999), and the *Virginia Register Form, Style, and Procedure Manual*.

Brief summary

In a short paragraph, please summarize all substantive changes that are being proposed in this regulatory action.

Section 12 VAC 5-585-500 of the *Biosolids Use Regulations* (Regulations) is to be revised to provide for field storage as an alternative to routine storage. The use of smaller temporary storage sites located near land application operations has provided an alternative that minimizes the operational problems associated with larger routine storage facilities. Operation of routine storage facilities, such as the lagoon system once located at the Hanover Industrial Air Park, resulted in liquid management problems and odor concerns leading to the closure of that facility. Many local governments have adopted local ordinances that prevent the construction of new routine storage facilities. However, the approval of temporary storage for biosolids, in excess of that transported to a site during a single day operation and not land applied on that site that day, has required the issuance of variances to the Regulations (12 VAC 5-585-90). The issuance of such variances is time consuming. Variances are a case-by-case response to a situation that could be more effectively and efficiently addressed by a consistent statewide requirement and policy. As site management practices will involve Nutrient Management Plans that may restrict biosolids application rates and time of application, the necessity of storage of biosolids during the specified non-application time periods will increase.

Legal basis

Please identify the state and/or federal legal authority to promulgate this proposed regulation, including (1) the most relevant law and/or regulation, including Code of Virginia citation and General Assembly chapter number(s), if applicable, and (2) promulgating entity, i.e., the agency, board, or person. Describe the legal authority and the extent to which the authority is mandatory or discretionary.

The *Biosolids Use Regulations* (12 VAC 5-585) were adopted by the State Board of Health in 1995 pursuant to Section 32.1-164.5 of the *Code of Virginia*. The *Biosolids Use Regulations* (Regulations) were subsequently revised, effective on October 15, 1997, in accordance with the Virginia Administrative Process Act (APA). The State Board of Health adopted amendments providing for the collection of land application fees and the reimbursement of local monitoring expenses at its January 31, 2003 meeting. Those amendments became final in March 2003.

The State Board of Health approved the submittal of a Notice of Intended Regulatory Action (NOIRA) for an amendment to the Regulations concerning field storage at its April 25, 2003 meeting. The draft amendment was presented to the State Board of Health at its October 24, 2003 meeting for its approval as a proposed amendment. The State Board of Health recommended that several revisions be made to the draft amendment, including providing a standard 500 foot buffer zone around the field storage site. Other recommendations included revisions to the draft seasonal storage requirements. The State Board of Health recommendations have been included in the proposed amendment.

A Notice of the public comment period for the proposed amendments was forwarded to the State Registrar of Regulations and published in the *Virginia Register* on December 27, 2004. The 60 day public comment period ended on February 28, 2005. Three public hearings were scheduled and held. The first hearing was on February 1, 2005, in the Town of Amelia Court House, the second hearing was on February 2, 2005, in the Town of Tappahannock and the third hearing was on February 3, 2005 in the Town of Culpeper.

Purpose

Please explain the need for the new or amended regulation by (1) detailing the specific reasons why this regulatory action is essential to protect the health, safety, or welfare of citizens, and (2) discussing the goals of the proposal, the environmental benefits, and the problems the proposal is intended to solve.

The Regulations provide the means to protect public health from improper and unregulated disposal of sewage sludge. These amendments are to be designed to provide a consistent and uniform set of State requirements that will address a number of issues that Local Governments must routinely deal with. It is anticipated that the development of State requirements for location and construction of field storage sites will provide Local Governments with a comprehensive set of standards for their consideration and could eliminate the need to develop non-uniform local requirements in these areas of concern and prevent extended litigation, brought by permitted entities, concerning unreasonably restrictive Local Government ordinances.

Substance

Please briefly identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. (More detail about these changes is requested in the "Detail of changes" section.)

The proposed amendment to the Regulations will involve the addition of a new section, (12 VAC 5-585-500 E) addressing field storage standards. The land applier may use field storage as an alternative to routine storage during periods of inclement weather, or when the site soils are frozen, or surface saturated. Field storage can be used during winter conditions when there is limited or no nutrient uptake following land application, or land application operations could result in either physical damage to the site soils, or alteration of the site surface, or otherwise increase the surface runoff of particulates. Only dewatered biosolids suitable for land application (Class A or B pathogen control) and established as having minimal odor can be placed into field storage. The quantity of stored biosolids at the storage site will be limited to the amount equivalent to the quantity that would provide the agronomic rate of application, in accordance with the provisions of the Regulations (12 VAC 5-585-510), for approved sites within or nearby the property on which the storage site is located. The stored biosolids will be sufficiently dewatered so as to be capable of maintaining a stacking height of at least 4 feet. The ability of the biosolids to stay consolidated during stockpiling is to be verified and documented by the permittee.

During administrative review of the final amendment, a concern was expressed about a wording change establishing a 60 day period for storing uncovered biosolids during the winter to early spring time period and it was decided that a revision was necessary to clarify the uncovered storage time period requirement. Objections were expressed about the recommended period for storing uncovered biosolids and certain interests proposed that a cover be provided immediately upon placement of biosolids in storage. Thus, the amendment stage was withdrawn at the request of legislators who anticipated addressing the issue during upcoming General Assembly sessions, in order to establish the authority of local government in the permit process for storage. This issue was the subject of legislation during the 2007 General Assembly session (SB 1300) and a 45 day uncovered period has been proposed as a compromise for storage facilities not regulated by local conditional use permits. Field storage facilities used to store biosolids that will only be used on the farm where the storage is located and the storage of biosolids is for less than 45 days, will not require a conditional use permit from local governments. Field storage facilities designed to provide storage of more than 45 days or to provide storage for biosolids land applied on permitted sites not part of the property on which the field storage is located may require Local Government approval. The revised amendment was re-introduced to the Board of Health for approval as a proposed amendment, since the administrative review of the final amendment had been delayed for a significant length of time and the revisions were not included in the public comment period for the original proposed amendment. The State Board of Health adopted the proposed amendment at their April 20, 2007 meeting in Richmond, Virginia.

Field Storage Areas are to be designed to furnish an impermeable storage surface capable of supporting heavy equipment and sloped to minimize accumulation of precipitation, or other methods of removing accumulated precipitation are to be provided. Management steps must be taken to assure that no ponding of water occurs in contact with biosolids. The stored biosolids shall maintain a sloping surface shape to minimize accumulation of precipitation on the stored biosolids. If biosolids are stored longer than a 14 day period an impervious liner under the stored biosolids, capable of supporting operational equipment will be required. If biosolids are stored longer than 45 days a waterproof covering over the stored biosolids may be required. These standards are designed to prevent contamination of any runoff from around the site. Minimum buffer distances around the storage site to points of access and sources of water are designed to ensure protection of public health. If environmental or public health concerns develop at the storage location, VDH will require that the biosolids be removed to another site and will remove the approval of the problem field storage site.

Issues

Please identify the issues associated with the proposed regulatory action, including:

- 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions;*
- 2) the primary advantages and disadvantages to the agency or the Commonwealth; and*
- 3) other pertinent matters of interest to the regulated community, government officials, and the public.*

If the regulatory action poses no disadvantages to the public or the Commonwealth, please so indicate.

The Biosolids Use Regulations Advisory Committee (BURAC) has assisted the Virginia Department of Health (VDH) in developing the proposed language. The proposed amendment reflects the recommendations from a majority of committee members. However, several committee members disapproved of the proposed language due to concerns that the field storage sites will not be properly managed. However, the temporary storage sites approved through the variance process to date have not been designed to meet the more strict standards now being proposed and although public complaints have been received, their operation has not resulted in either actual public health effects, or water quality standards violations. Although the majority of the Advisory Committee members were in favor of the draft revision language, several members of the committee requested that more stringent requirements be included and stated that they objected to the field storage amendment without additional restrictions for site management practices limiting biosolids applications in winter months on sites that did have sufficient vegetation established. This issue will be resolved through the requirement for nutrient management plans for each land application site.

The amendment requirements will protect public health by providing standards for storing biosolids on permitted land application sites. The field storage standards will serve as a basis for additional operational restrictions placed on land applicators by the Virginia Department of Health to further protect the neighbors and public from any adverse impacts of land application operations. The existing large routine storage facilities have previously resulted in numerous odor complaints. The use of smaller field storage sites will greatly reduce the need to use large biosolids storage facilities that have been approved to date. Although this amendment to the Regulations will eliminate the need to process temporary storage variances, site specific comments from local government will continue to be solicited as is currently done in the processing of land application permits.

Public comments received by VDH from local governments indicate that some are against state approval of temporary field storage sites. They believe that local governments should have a greater say in the process due to the health and environmental concerns associated with the biosolids and they believe that the proposed changes would allow applicators to store biosolids at temporary field storage sites without justifying the need for field storage and without notifying VDH about the site. However, the proposed regulation specifies the circumstances under which biosolids may be put in to field storage, the length of time and conditions under which biosolids may be stored, the types of biosolids that can be placed in to field storage, best management practices and design requirements for field storage sites, operational requirements for field storage sites, record-keeping and reporting requirements, pre-approval, notification, and public participation requirements for all field storage sites, and the conditions under which approval for a field storage site may be denied or revoked. Also, the proposed regulation establishes restrictions on the type, quantity, and length of time biosolids can be stored at temporary field storage sites. Thus, to the extent that allowing for temporary storage prevents inappropriate land application and reduces the dependence on large routine storage facilities, the proposed change is likely to produce environmental benefits.

Concerns were also raised by a BURAC member about the lack of compliance with the proposed standards and the enforcement deficiencies in the proposed regulation (especially with regard to

phosphorous content of biosolids). It was the opinion that until these deficiencies were removed, protections currently afforded by local governments must not be stripped away. Local governments are notified of variance applications and are requested to provide specific reasons if they choose to request a denial of the variance. In the absence of any site-specific local concerns, VDH generally approves the variance as long as the site meets the specified standards (as was the case with the temporary storage site located on the Lanier Farm in Goochland County). The proposed regulation will continue to provide for local government input, requiring local governments to be notified of all proposed temporary field storage sites and allowing them a 30-day comment period. Moreover, the use of local monitors working with VDH staff should ensure that local government concerns are properly considered prior to the approval of a field storage site.

Requirements more restrictive than federal

Please identify and describe any requirement of the proposal which are more restrictive than applicable federal requirements. Include a rationale for the need for the more restrictive requirements. If there are no applicable federal requirements or no requirements that exceed applicable federal requirements, include a statement to that effect.

The Regulations contain all the procedural and operations requirements in the Environmental Protection Agency’s (EPA) regulations, 40 C.F.R. Part 503 (Part 503), plus additional requirements and safeguards as specified in this amendment, including: Field Storage Areas are to be designed to furnish an impermeable storage surface capable of supporting heavy equipment and sloped to minimize accumulation of precipitation, or other methods of removing accumulated precipitation are to be provided. Management steps must be taken to assure that no ponding of water occurs in contact with biosolids. The stored biosolids shall maintain a sloping surface shape to minimize accumulation of precipitation on the stored biosolids. If biosolids are stored longer than a 14 day period, an impervious liner under the stored biosolids, capable of supporting operational equipment will be required. If biosolids are stored longer than 45 days, a waterproof covering over the stored biosolids will be required. These standards are designed to prevent contamination of any runoff from around the site. Minimum buffer distances around the storage site to points of access and sources of water are designed to ensure protection of public health. If environmental or public health concerns develop at the storage location, VDH will require that the biosolids be removed to a permitted location and will remove the approval of the problem field storage site.

Localities particularly affected

Please identify any locality particularly affected by the proposed regulation. Locality particularly affected means any locality which bears any identified disproportionate material impact which would not be experienced by other localities.

There are 52 counties in Virginia in which sites have been permitted by VDH in accordance with the regulations.

Public participation

Please include a statement that in addition to any other comments on the proposal, the agency is seeking comments on the costs and benefits of the proposal and the impacts of the regulated community.

In addition to any other comments, the board/agency is seeking comments on the costs and benefits of the proposal and the potential impacts of this regulatory proposal. Also, the agency/board is seeking information on impacts on small businesses as defined in § 2.2-4007.1 of the Code of Virginia. Information may include 1) projected reporting, recordkeeping and other administrative costs, 2) probable effect of the regulation on affected small businesses, and 3) description of less intrusive or costly alternative methods of achieving the purpose of the regulation.

Anyone wishing to submit written comments may do so by mail, email or fax to C. M. Sawyer, PE, Director, Division of Wastewater Engineering, VDH, 109 Governor Street, Richmond, VA 23219, E-Mail: cal.sawyer@vdh.virginia.gov, Phone: 804-864-7463, Fax: 804-864-7475. Written comments must include the name and address of the commenter. In order to be considered comments must be received by the last date of the public comment period.

A public hearing will be held and notice of the public hearing may appear on the Virginia Regulatory Town Hall website (www.townhall.virginia.gov) and can be found in the Calendar of Events section of the Virginia Register of Regulations. Both oral and written comments may be submitted at that time.

Economic impact

Please identify the anticipated economic impact of the proposed regulation.

Projected cost to the state to implement and enforce the proposed regulation, including (a) fund source / fund detail, and (b) a delineation of one-time versus on-going expenditures	Cost included in the Division of Wastewater Engineering budget
Projected cost of the regulation on localities	None
Description of the individuals, businesses or other entities likely to be affected by the regulation	Private firms that land apply biosolids through contracts with Municipalities and agreements with landowners and farmers.
Agency’s best estimate of the number of such entities that will be affected. Please include an estimate of the number of small businesses affected. Small business means a business entity, including its affiliates, that (i) is independently owned and operated and (ii) employs fewer than 500 full-time employees or has gross annual sales of less than \$6 million.	10
All projected costs of the regulation for affected individuals, businesses, or other entities. Please be specific. Be sure to include the projected reporting, recordkeeping, and other administrative costs required for compliance by small businesses.	The cost of locating and constructing field storage sites may increase the cost of handling biosolids used for land application by 8 to 10 dollars per wet ton.

Alternatives

Please describe any viable alternatives to the proposal considered and the rationale used by the agency to select the least burdensome or intrusive alternative that meets the essential purpose of the action. Also, include discussion of less intrusive or less costly alternatives for small businesses, as defined in §2.2-4007.1 of the Code of Virginia, of achieving the purpose of the regulation.

The Virginia Department of Health may elect to request that the State Board of Health consider the following alternatives:

1. Do not revise the Biosolids Use Regulations,
2. Revise the entire set of Biosolids Use Regulations, or
3. Revise the sections of the Biosolids Use Regulations dealing only with storage.

Failure to provide specific State requirements as requested will likely result in local adoption of ordinances with varying non-uniform requirements that could have significant financial impacts on the regulated entities. Court challenges are likely to result from inconsistent and overly restrictive local ordinances, leading to expensive litigation. Although additional requests for revisions to the Biosolids Use Regulations have been submitted by local governments and private individuals, the process of revising the entire set of the Biosolids Use Regulations will likely become a long drawn out process, as the land application of biosolids is a highly controversial subject. Thus, the Virginia Department of Health is electing to recommend that only the previously listed sections of the Biosolids Use Regulations be revised at this time.

Regulatory flexibility analysis

Please describe the agency's analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) the establishment of less stringent compliance or reporting requirements; 2) the establishment of less stringent schedules or deadlines for compliance or reporting requirements; 3) the consolidation or simplification of compliance or reporting requirements; 4) the establishment of performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the proposed regulation.

All private land appliers must obtain land application permits and comply with the Regulations in each county where they have signed agreements with the landowner and farmer.

Public comment

Please summarize all comments received during public comment period following the publication of the NOIRA, and provide the agency response.

Commenter	Comment	Agency response
Department of Conservation and Recreation (DCR)	Joseph H. Maroon, Director: Field storage amendment must be made concurrently with the adoption of management practices amendments including seasonal restrictions on land application.	The State Board of Health recently adopted a final amendment to the <i>Regulations</i> that will address the management practices issues raised by DCR.
Hanover County	Richard R. Johnson, County Administrator: The Board of Supervisors opposes the State approval of field storage sites without the use of a variance procedure that includes participation by local government.	An opportunity for local government input on each request for approval of a field storage site is provided through the proposed amendment. The use of local monitors working with VDH Staff should ensure that local government concerns are properly considered prior to approval of a field storage site.
Northumberland County	Kenneth D. Eades, County Administrator: The Board of Supervisors opposes the State approval of field storage sites due to concerns about resulting environmental contamination of the soil, ground water and streams.	The proposed amendment provides standards for the location and operation of field storage that will prevent environmental pollution and restrict access to the storage site.
Middlesex County	Charles M. Culley, County Administrator: The Board of Supervisors opposes the State approval of field storage sites as local government should have more control in order to require sufficient environmental safeguards.	See previous responses to Hanover and Northumberland County comments.
Citizens		
Charlotte County	Dorothy M. Gregory, Madisonville, VA: Opposes land application of biosolids due to possible environmental pollution effects.	The proposed amendment provides standards for the location and operation of field storage that will prevent environmental pollution and restrict access to the storage site.
Charlotte County	Larry L. Lail, Charlotte Court House, VA: Oppose field storage of Class B Pathogen Control Biosolids due to possible health effects resulting from exposure to pathogens.	Only dewatered biosolids suitable for land application (Class A or B pathogen control) and established as having minimal odor can be placed into field storage. Minimum buffer distances around the storage site to points of access and sources of water are designed to ensure protection of public health.
Cumberland County	Catherine R. Trammell, RN Farmville, VA: Oppose field storage due to possible health effects resulting from exposure to pathogens and the lack of monitoring of land application operations.	Field Storage design standards will prevent contamination of any runoff from around the site. Routine inspections of Field Storage sites will be performed by VDH staff and Local Monitors. If environmental or public health concerns develop at the storage location, VDH will require that the biosolids be removed to another site and will remove the approval of the problem field storage site.

Contractors		
Recyc Systems, Inc.	Susan Trumbo, Technical Manager: Supports the field storage amendments.	VDH recognizes the support of the land application company for adoption of this amendment.
Synagro Mid-Atlantic, Inc.	Steve McMahon, Technical Services Director: Supports the field storage amendments.	VDH recognizes the support of the land application company for adoption of this amendment.
Nutri-Blend, Inc.	David Smith, Former Project Manager: Supports the field storage amendments.	VDH recognizes the support of the land application company for adoption of this amendment.
Milton F. Wright Trucking, Inc.	Lloyd E. Wright, Nutrient Management Planner: Supports the field storage amendments.	VDH recognizes the support of the land application company for adoption of this amendment.

In addition, the following comments were received during the initial comment period on the proposed amendment:

Commenter	Comment	Agency response
The Department of Planning and Budget (DPB) Economic Impact Analysis (EIA) Statement was published with the proposed amendments in the <i>Virginia Register</i> Volume 21, Issue 8, December 27, 2004.	The DPB analysis was directed to the potential fiscal impacts on the owners of sewage treatment works and on the Biosolids Contractors and land appliers that may be incurred upon adoption of the proposed amendments. However, DPB also considered the potential environmental and public health impacts that may occur upon adoption of the proposed amendments.	VDH concurs substantially with the conclusions drawn and the analysis contained in the EIA Statement.
Rebecca Draper, Hanover County	Rebecca Draper, then Director of Public Works for Hanover County, submitted a 2004 letter reasserting the position of the Hanover County Board of Supervisors opposing the field storage amendment due to anticipated problems with monitoring numerous field storage sites and problems with runoff and odors.	VDH believes that the number of field storage sites will be much lower than the County has anticipated and the projected problems with monitoring the field storage sites will not develop. The siting and operation standards for field storage sites as required in the amendment will prevent runoff and odor problems from developing. If such problems were to occur then the site would be closed and no longer used.

<p>Susan Trumbo of Recyc Systems, Inc.</p>	<p>Susan Trumbo of Recyc Systems, Inc. submitted a letter in support of the field storage amendment. However, Ms. Trumbo requested that revisions be made to the amendment language as follows;</p> <ol style="list-style-type: none"> 1. That stored biosolids not be covered until 60 days have passed after placement in storage and that the specification for plastic covers be equivalent to 6 mil to provide for more practical operation of field storage. 2. That the terms, generator or its agent, be replaced with the term, owner, to provide consistent terminology within the amendment. 	<p>VDH has no objection to revising the proposed language as recommended, as problems with runoff from accumulated precipitation and odor development have not been observed for uncovered biosolids stored longer than 30 days at temporary storage sites approved through the variance procedure. Thus, the 45 day uncovered condition as adopted into legislation will replace the 60 day provision. In addition, the more readily available 6 mil plastic coverings will adequately shed precipitation. The revisions would be as follows in brackets:</p> <ol style="list-style-type: none"> 1. "... <u>If biosolids are to be stored for more than [60 45] days, a cover over the biosolids equivalent or better to that provided by a [40 6] mil plastic material, shall be maintained...</u>". 2. "...<u>Biosolids stockpiles are to be checked by the [permittee] at least every 14 days...</u>".
<p>Sharon Nicklas, Hampton Roads Sanitation District</p>	<p>Sharon Nicklas with the Hampton Roads Sanitation District (HRSD) submitted an e-mail commenting on the minimum buffer set-back distance and the requirement for Fecal Coliform monitoring of biosolids stored longer than 45 days. Ms Nicklas stated, "based on actual evidence observed by VDH regarding field storage sites, HRSD recommends that additional fecal coliform monitoring be deleted and the minimum buffer distances be adjusted."</p>	<p>VDH does not recommend decreasing the Board of Health requested 500 foot buffer distance. The amendment provides that the State Health Commissioner can reduce the 500-foot set-back to 250 feet to adjacent property, upon the written consent of that owner. As HRSD states, the field storage sites will be selected to be as remote as possible, such that the 500 foot set-back should not pose a concern.</p> <p>VDH does not recommend deleting the Fecal Coliform monitoring requirement as such tests on composite samples should produce useful information on the microbiological content of stored biosolids.</p>
<p>Public Hearing, Amelia County</p>	<p>Approximately 50 people attended the public hearing in Amelia County and 17 indicated a desire to speak at the meeting. General comments received at the public hearing in Amelia County addressed possible environmental pollution and public health effects that primarily were concerns expressed about land application of biosolids.</p>	<p>VDH believes that such concerns will be addressed by the amended Biosolids Use Regulations and the current permit program, along with the development of the local monitor program.</p>
<p>Jim Bennett, Amelia County Board of Supervisors</p>	<p>Jim Bennett a member of the Amelia County Board of Supervisors stated that his constituents were opposed to field storage. He inquired as to why biosolids were not covered until after 30 days of</p>	<p>A cover over stored biosolids problems may help reduce runoff from accumulated precipitation directly in contact with biosolids and may help prevent odor development. However,</p>

	storage.	such problems have not been observed for uncovered biosolids stored longer than 30 days at temporary storage sites currently approved through the variance procedure.
Public Hearing - Town of Tappahannock,	At the public hearing held in the Town of Tappahannock, Ray Thomas, a local farmer, Harrison Moody representing Recyc Systems, Inc. and Mary Powell, representing Nutri-Blend, Inc. spoke in support of the proposed amendment. Mr. Moody indicated that Recyc Systems would submit written comments. Ms. Powell stated that the amended language could be confused with certain routine storage requirements now contained in the Biosolids Use Regulations such as fencing around the storage site. Susan Trumbo submitted the written comments for Recyc Systems as summarized here.	VDH agrees with Ms. Powell’s observation that field storage should be identified as a fourth storage option in Section 12 VAC 5-585-500 of the Biosolids Use Regulations as follows: “[Three Four] types of storage may be integrated into a complete sludge management plan including”.... [(iv) <u>“field storage” involving the provision of storage of biosolids at a land application site on pre-approved constructed areas in accordance with this section.</u>]
Hunter Richardson, Synagro Mid Atlantic	At the public hearing held in the town of Culpeper, Hunter Richardson representing Synagro Mid Atlantic, Inc., spoke in support of the proposed amendment.	VDH staff recognize the support of Synagro for this amendment

Family impact

Please assess the impact of the proposed regulatory action on the institution of the family and family stability including to what extent the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one’s spouse, and one’s children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

The proposed regulatory action will have no anticipated or associated impacts on family rights to educate and supervise children. It will not discourage economic self-sufficiency and family responsibilities and commitments or decrease disposable family income.

Detail of changes

Please detail all changes that are being proposed and the consequences of the proposed changes. Detail all new provisions and/or all changes to existing sections.

If the proposed regulation is intended to replace an emergency regulation, please list separately (1) all changes between the pre-emergency regulation and the proposed regulation, and (2) only changes made since the publication of the emergency regulation.

Current section number	Proposed new section number, if applicable	Current requirement	Proposed change and rationale
12 VAC 5-585- 500 Storage Facilities.		Currently this section does not include field storage as an option for storage.	A fourth category of storage has been added to this section as follows: ... (iv) "field storage" involving the provision of storage of biosolids at a land application site on pre-approved constructed areas in accordance with this section.]
12 VAC 5-585- 500 E		None	<p>The permittee may use field storage as an alternative to routine storage during periods of inclement weather, or when the site soils are frozen, or surface saturated. Field storage may be used during winter conditions when there is limited or no nutrient uptake, or land application operations could physically alter the site surface or otherwise increase surface runoff of particulates. The Department shall notify local government in advance of all proposed field storage locations and provided an opportunity of at least 30 days to comment on the proposed site. A field storage site on which biosolids are stored for less than 45 days on a permitted site and used within that farm, owned or leased by the individual(s) listed on the Table A-1 agreement, will not require local government approval. The Commissioner will consider all comments on the proposed location and may deny or revoke approval of any site if it becomes problematic due to odor, health, or water quality issues, in accordance with the provisions of this chapter (12 VAC 5-585-70). Adequate daily records of biosolids quantities stored shall be maintained and reported monthly in accordance with the provisions of this chapter. The design and operation of the field storage site shall be adequately described and approved in accordance with this chapter (12 VAC 5-585-500 and 620). All field storage locations and biosolids sources must be pre-approved by the [Department] and all such facilities shall comply with the following standards:</p> <p>1. Only dewatered biosolids suitable for land application (Class A or B pathogen control) and established as having minimal odor [e.g.</p>

			<p>pH of 11 or more, or digested with a volatile solids level of 60 percent or less or other method approved by the Division] shall be placed into field storage.</p> <p>2. Field storage operations shall not result in water quality, public health, or public nuisance problems. If field storage is used, the following requirements and Best Management Practices shall be adhered to:</p> <p>a) Field storage locations shall be as remote as practicable and located only in areas identified as having no flooding potential as identified by the County Soil Survey. Sites selected for field storage shall not be located on soils that regularly experience either standing water, excessive runoff after storm events, or water tables within 6 inches of the ground surface, such as the Hydrologic Group D soils as defined by the Natural Resources Conservation Service (NRCS) and indicated by the County Soil Survey. Unlined stockpiles shall not be located on soils with NRCS defined permeability values of more than 12.0 inches per hour in the top 24 inches of soil (such as gravel) resulting in excessive infiltration rates.</p> <p>b) The quantity of stored biosolids at the storage site shall be limited to the amount equivalent to the quantity that would provide the agronomic rate of application, in accordance with the provisions of this chapter (12 VAC 5-585-510), for approved sites within or nearby to the property on which the storage site is located. The stored biosolids shall be sufficiently dewatered so as to be capable of maintaining a stacking height of at least 4 feet. The ability of the biosolids to stay consolidated during stockpiling is to be verified and documented by the operator of the treatment works producing the biosolids at the source. This consolidation property is to be rechecked at the storage location if the biosolids contain polymers that may be altered during storage such that the biosolids bound water is released. Biosolids may be blended with thickened biosolids at the</p>
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			<p>source treatment facility if they do not have the proper consistency.</p> <p>c) Field storage areas are to be designed to minimize accumulation of precipitation, or methods of removing accumulated precipitation [shall] be provided. Management steps must be taken to assure that no ponding of water occurs in contact with biosolids. The stored biosolids shall maintain a sloping surface shape that minimizes accumulation of precipitation on the stored biosolids.</p> <p>3. The design of field storage sites shall meet the following requirements:</p> <p>a. The distance to seasonal high water table shall be equal to or more than 36 inches, unless a liner with a minimum permeability of 10^{-6} cm/sec and of sufficient strength to support operational equipment and approved by the [Department] is installed.</p> <p>b. The distance to bedrock shall be equal to or greater than 40 inches unless a liner with a minimum permeability of 10^{-6} cm/sec and of sufficient strength to support operational equipment and approved by the [Department] is installed.</p> <p>c. In karst topography, the [Department] may require additional design measures.</p> <p>d. If the average site slope is greater than 6%, adequate surface water diversion methods must be provided and maintained.</p> <p>e. The minimum buffer distances to property lines, occupied residences, and potable wells will be 500 feet. The Commissioner may grant a buffer reduction of up to 250 feet if the affected party agrees to the reduction in writing and the agreement is notarized and submitted to the [Department]. The minimum distance to surface waters that are flowing in a distinct channel shall be 500 feet.</p> <p>4. Seasonal restrictions on storage time shall</p>
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			<p>be established in accordance with the design of the field storage site. Biosolids may be stored on an approved field storage site for up to 14 days. If biosolids are stored on an approved field storage site for more than 14 days, a liner base under the stored biosolids shall be maintained during the storage time. The liner base shall be impervious and of sufficient strength to support operational equipment as approved by the Department. If biosolids are to be stored for more than 45 days, a cover over the biosolids equivalent or better to that provided by a 6 mil plastic material, shall be maintained during the storage time. Biosolids stored during the months of April through October shall be removed for permitted use or disposal within 30 days of placement in storage. Biosolids stored during the months of November through March shall be removed for permitted use or disposal within 45 days of placement in storage unless covered. Covered biosolids, stored during the months of November through March, must be removed for permitted use or disposal within 120 days of placement in storage.</p> <p>5. Operation of the field storage site shall meet the following requirements:</p> <ul style="list-style-type: none"> a. Biosolids must be removed from the storage site within 48 hours if objectionable odors (would interfere with reasonable use of adjacent property) related to the stored biosolids are verified by the Department at any occupied residence on surrounding property. b. Biosolids placed into covered storage are to be of a sufficiently cool temperature to allow placement of covering that will not result in safety or health concerns from a build up of heat, ammonia, or other gases or odors. Only biosolids with a minimum potential for heat build-up, such as stabilized compost, are to be placed in covered storage as incompletely stabilized compost can reheat to the point of catching fire. c. Biosolids stockpiles are to be checked by the permittee, at least every 14 days and within 24 hours after precipitation events with a sustained duration of 30
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			<p>minutes or more at a National Weather Service estimated intensity of more than 0.75 inches per hour, to ensure that runoff controls are in good working order. Any observed excessive slumping, erosion or movement of biosolids is to be corrected within 24 hours. Any ponding within or abutting the stored biosolids, that could either lead to runoff to nearby waterways, or produce objectionable odor at the site is to be corrected. Appropriate documentation of biosolids stockpile field checks shall be submitted with monthly reports.</p> <p>d. Biosolids stored for greater than 45 days shall be re-tested prior to land application for fecal coliform, TKN, and NH₃ -N.</p> <p>e. Following storage without liners, the residual biosolids remaining on the soil should be scraped and removed, the soil at the site shall be tilled to break up compaction, and the site should be cropped to take up nutrients.</p> <p>f. The Department may specify further restrictions on field storage at any time it deems necessary.</p>
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